



**Steven W. Troxler**  
Commissioner

## North Carolina Department of Agriculture and Consumer Services

May 2, 2017

Tawanda Maignan, Team Leader  
Emergency Response Team  
US EPA Office of Pesticide Programs  
Document Processing Desk (EMEX)  
Room S4900, One Potomac Yard  
2777 Crystal Drive  
Arlington, VA 22202

Dear Ms. Maignan,

This letter notifies the EPA that I am requesting the renewal of a Specific Exemption under Section 18 of FIFRA to allow the use of the insecticide bifenthrin to control the Brown Marmorated Stink Bug (BMSB) in apple and peach orchards in North Carolina. Bifenthrin is the active ingredient in FMC Brigade WSB (Reg.# 279-3108), UPI Bifenture EC (Reg.# 70506-57), and UPI Bifenture 10DF (Reg.# 70506-227), all of which are being requested for this exemption. The two registrants, FMC and UPI, fully support this request.

According to Dr. Jim Walgenbach (Professor & Extension Entomologist, N.C. State University) the BMSB has reached portions of North Carolina and was found on apple and peach trees in 2010 through 2017. The BMSB is known to be in North Carolina counties that account for major production of apples and peaches, including Henderson, Polk, Cleveland, Lincoln, Wilkes, Alexander, Moore, Montgomery and Anson. Since the BMSB continues to be a significant threat to our apple and peach crops, it remains important for us to provide our growers with effective control options. By Dr. Walgenbach's estimates, up to 2,500 of North Carolina's 6,000 acres of apple trees and up to 500 of our state's 4,500 acres of peach trees may need treatments for BMSB in 2017. The peach acreage would have been higher if not for a March freeze that damaged most of the flower buds.

North Carolina will also be participating in the renewal of last year's exemption that allowed applications of dinotefuran to control this pest on these crops. According to Dr. Walgenbach, bifenthrin is also needed to help provide protection during the middle of the growing season. Dinotefuran applications are limited to only two per season and due to the short preharvest interval of three days, are best utilized at the end of the season just prior to harvest. If applied mid-season, dinotefuran will not maintain a sufficient residual to be effective against late-season BMSB populations. Due to these reasons, North Carolina is participating in the regional request to renew the bifenthrin emergency exemption for 2017.

It is our understanding that, on behalf of several states, the Maryland Department of Agriculture will submit to your office a regional section 18 package for this use. North Carolina is included as a partnering state in this request. Please refer to MDA's package for much of the information supporting this use in North Carolina. We have also enclosed some additional information specific to our state.

Page 2 of 2  
Tawanda Miagnan  
Exemption for use of bifenthrin  
May 2, 2017

To provide apple and peach growers in the affected counties the opportunity to continue producing a profitable crop, I am requesting the renewal of this emergency exemption. Should you have any questions, feel free to contact Dr. Jim Walgenbach at 828-684-3562 ([Jim\\_Walgenbach@ncsu.edu](mailto:Jim_Walgenbach@ncsu.edu)) or Lee Davis of the NCDA&CS Pesticide Section at 919-733-3556 ([lee.davis@ncagr.gov](mailto:lee.davis@ncagr.gov)).

Sincerely,



Steven W. Troxler  
Commissioner

cc: North Carolina Pesticide Board  
Dr. Richard H. Linton, Dean, College of Agriculture and Life Sciences, NCSU  
Mr. Jim Saylor, President, North Carolina Apple Growers Association  
Mr. Bruce Thompson, President, North Carolina Peach Growers Society, Inc.  
Dr. Jim Walgenbach, Professor and Extension Entomologist, NCSU

**STREAMLINED REPEAT REQUEST  
SECTION 18 SPECIFIC EXEMPTION  
NORTH CAROLINA  
May 4, 2017**

**USE BEING REQUESTED**

ACTIVE INGREDIENT:	BIFENTHRIN
BRAND NAMES:	BRIGADE WSB, BIFENTHRIN EC, & BIFENTHRIN 10DF INSECTICIDES
EPA REG. NUMBERS:	279-3108, 70506-57, & 70506-227
SITE:	APPLE, PEACH, AND NECTARINE TREES
PEST:	BROWN MARMORATED STINK BUG
FULL APPLICATION DATE:	MAY 2012
FULL APPLICATION ID#:	12NC01 (apple), 12NC02 (peach), 12NC03 (nectarine)
YEARS REQUESTED:	FIRST SPECIFIC EXEMPTION REQUEST WAS SUBMITTED AND GRANTED IN 2012. STREAMLINED REQUEST SUBMITTED AND GRANTED IN 2013 - 2016.

Situation:

1. The emergency condition(s) described in the previously submitted emergency exemption application continues to exist.

*The situation with regard to the need for an emergency label is identical to 2016.*

2. All information submitted in the previously submitted emergency exemption application is still accurate: *or* except as expressly identified in the submitted re-certification application, all information submitted in the previously submitted emergency exemption application is still accurate.

*Except as provided in the 2017 emergency exemption request recently submitted by the Maryland Department of Agriculture, all information submitted in our previous 2016 application is still accurate. According to Dr. Walgenbach, the peach acreage would have increased from the 500 acres in 2016 if not for significant crop loss from a freeze event in March 2017.*

*The emergency exemption request submitted by MDA is on behalf of several partnering states including North Carolina. Please refer to that document for additional information.*

3. The proposed conditions of use are identical to the conditions of use EPA approved previously (indicate ID# and date); **or** the proposed conditions of use are identical to the conditions of use EPA approved for the previous emergency exemption (indicate ID# and date) except as expressly identified (explanation attached).

*The conditions of use are identical to those conditions approved by the EPA in 2016. (ID# 16NC07 (apple), 16NC08 (peach), 16NC09 (nectarine), Date: July 12, 2016)*

4. There are no additional conditions or limitations on the eligibility for recertification identified in the previous notice of approval; **or** any conditions or limitations on the eligibility for recertification identified in the previous notice of approval of the exemption have been responded to (explanation attached).

*According to the previous notice of approval, the EPA requires an update on efforts made to obtain registration of the uses covered by the exemption. It is our understanding that MDA has provided this update on behalf of the partnering states.*

5. The applicant has not newly become aware of any alternative chemical or nonchemical practice that may offer a meaningful level of pest control; **or** if any such new alternative controls are available, documentation is provided that demonstrates that each such known chemical or practice does not provide adequate control or is not economically or environmentally feasible (explanation attached).

*No new alternative chemicals or economically viable nonchemical practices have been identified that will provide acceptable control of this pest.*

NC STATE UNIVERSITY

Mountain Horticultural Crops Research  
and Extension Center  
455 Research Dr.  
Mills River, NC 28759  
(828) 684-3562  
Jim\_Walgenbach@ncsu.edu

April 20, 2017

Mr. Lee Davis  
Pesticide Registration Manager  
Structural Pest Control and Pesticide Division  
NCDA&CS  
Raleigh, NC 27607

Dear Mr. Davis,

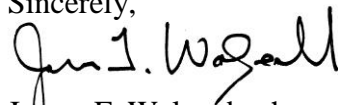
This letter is to express my support for the NCDA&CS participation in the renewal of the regional emergency exemption request (Section 18) for the insecticide dinotefuran to control the brown marmorated stink bug (BMSB) on apples, and bifenthrin to control BMSB on apples and peaches in NC. These renewal requests are regional collaborations among eastern US states, with the Virginia Department of Agriculture & Consumer Services and the Maryland Department of Agriculture taking lead roles in submitting the dinotefuran and bifenthrin requests, respectively, to the EPA.

The BMSB is an invasive pest whose populations have steadily increased in NC during the past six to seven years. In 2015, an estimated 50% of apple and peach growers in the mountain and piedmont production regions reported damage by BMSB, and at least half of those reported damage in excess of 25%. The availability of bifenthrin and dinotefuran through a Section 18 request in 2016 helped reduce damage to 4 to 5% last year. Although this level of damage is still considered too high, bifenthrin and dinotefuran helped avoid a potentially catastrophic loss in 2016. There is no reason to believe that pest pressure will be lower in 2017, and hence the need for this Section 18 request.

The majority of insecticides registered on apples and peaches are only marginally effective against BMSB, and reliance on those products has not provided adequate control where populations have been established for longer periods of time. Section 18 renewal requests for both bifenthrin and dinotefuran, two of the more effective products against BMSB, will provide the needed flexibility to manage this pest. Bifenthrin, with a 14-day preharvest interval, will provide control options during mid-season, while dinotefuran, with a 3-day preharvest interval, offers an option for late-season control. The availability of both products with different modes of action is also needed for resistance management programs.

Thank you for your time and effort in putting together the package of information required for North Carolina's participation in these requests.

Sincerely,



James F. Walgenbach  
Professor & Extension Entomologist



**United Phosphorus, Inc.**

Sherry B. Hutcheson  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406  
Phone: (229) 247-9041

April 11, 2017

Lee Davis  
Pesticide Registration Manager  
NCDA &CS

**RE: Section 18 Letter of Support for Bifenture EC and Bifenture 10DF Insecticides**

United Phosphorus, Inc. (UPI) fully supports the Section 18 emergency exemption for use of Bifenture EC and Bifenture 10DF Insecticides, containing the active ingredient bifenthrin for control of Brown Marmorated Stink Bug (*Halyomorpha halys*) on apples, peaches and nectarines in North Carolina (and other supporting States). The products we supply are:

- Bifenture EC – EPA Reg. No. 70506-57
- Bifenture 10DF – EPA Reg. No. 70506-227

UPI will be able to supply product to meet the market demand for 2017.

If you have any questions, please feel free to contact me directly at 229-247-9041 or [sherry.hutcheson@uniphos.com](mailto:sherry.hutcheson@uniphos.com). If you have technical questions about the product and control of BMSB, please contact Tony Estes at 864-202-7526 or [tony.estes@uniphos.com](mailto:tony.estes@uniphos.com).

Thank you for your time and consideration.

Best regards,

*Sherry B. Hutcheson*

Sherry B. Hutcheson  
Sr. Regulatory Manager

Cc Tony Estes

## RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators, or persons under their direct supervision,  
and only for the uses covered by the certified applicator's certification.

### For distribution and use only in North Carolina under an emergency exemption authorized under Section 18 of FIFRA

All applicable directions, restrictions, and precautions on the EPA registered product labels as well as those on these directions for use must be followed. These directions for use must be in the possession of the user at the time of pesticide application.

**Products:** Bifenture® EC Agricultural Insecticide (EPA Reg. No. 70506-57)  
Bifenture® 10DF Insecticide/Miticide (EPA Reg. No. 70506-227)

**Firm Name:** United Phosphorus, Inc.  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406

**Crop/Site/Commodity:** Apples, Peaches, Nectarines

**File Symbol:**

**Target Pest/Problem:** Brown Marmorated Stink Bug (*Halyomorpha halys*)

**Dosage:** Apply 5.12 – 12.8 fl ozs (0.08-0.20 lbs ai) per acre of **Bifenture EC Agricultural Insecticide** (EPA Reg. No. 70506-57), **OR**  
Apply 12.8 – 32.0 ozs (0.08-0.20 lbs ai) per acre of **Bifenture 10DF Insecticide/Miticide** (EPA Reg. No. 70506-227)  
Use higher rates under heavy insect pressure.

**Dilution Rate:** **By Ground Only:** Apply as a dilute spray (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre).  
For best control, thorough coverage is necessary.

#### Frequency/Timing of

**Applications:** Applications should be applied when populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area. Do not apply more than 32 fl ozs (0.50 lbs ai) of **Bifenture EC Agricultural Insecticide** or 80 ozs (0.50 lbs ai) of **Bifenture 10DF Insecticide/Miticide** per acre per season. For all Bifenthrin products used, do not apply more than a total of 0.50 lbs ai/acre per season. Apply as necessary to maintain control using a minimum of 30-day spray intervals. Do not apply this product until after petal fall. Do not graze livestock in treated orchards or cut treated cover crops for feed.

**Restrictions:** This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the high mean water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters.

This product is highly toxic to bees exposed directly to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

**Restricted Entry**

**Interval (REI):** 12 hours

**Pre-Harvest Interval**

**(PHI):** 14 days

**Restricted Use Pesticide:** When used in North Carolina, applications can only be made by certified applicators or by persons under their direct supervision and only for those uses covered by the certified applicators certification.

**This exemption is effective \_\_\_\_\_ through \_\_\_\_\_.**





**FMC Corporation**  
2929 Walnut Street  
Philadelphia, PA 19104  
USA

215.299.6000  
fmc.com

May 5, 2017

Lee Davis  
North Carolina Department of Agriculture & Consumer Services  
Pesticide Division  
1090 Mail Service Center  
Raleigh, NC 27699-1090

RE: Section 18 Letter of Support

Dear Mr. Davis:

As the registrant for Brigade WSB Insecticide/Miticide (EPA Reg. No. 279-3108), FMC fully supports the proposed renewal of a Section 18 emergency exemption use of the product in North Carolina on apples, peaches, and nectarines to control the Brown Marmorated Stink Bug (*Halyomorpha halys*).

FMC is committed to working with IR-4 in their program to obtain Section 3 registrations for use of bifenthrin on pome and stone fruits. IR-4 conducted field magnitude of the residue trials on apples (PR 11016) and peaches (PR 11017) in 2013 and subsequently submitted petitions for tolerances and applications to register these new uses to US EPA in June 2016. We expect Agency decisions on these uses in early 2018.

Please contact me by telephone at 215-299-6717 or by email at [tim.formella@fmc.com](mailto:tim.formella@fmc.com) if you have any questions on this matter.

Sincerely,

A handwritten signature in blue ink that reads "Timothy M. Formella". The signature is written in a cursive, flowing style.

Timothy M. Formella  
Senior Product Registration Manager  
FMC Corporation

## RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certificate



### Section 18 EXEMPTION

FOR DISTRIBUTION  
AND USE ONLY IN  
NORTH CAROLINA

EPA File Symbols:

17-NC-\_\_\_\_,

17-NC-\_\_\_\_,

17-NC-\_\_\_\_

EMERGENCY CALLS: 800-331-3148

**ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE REGISTERED PRODUCT LABEL FOR BRIGADE WSB (EPA REG. NO. 279-3108) AS WELL AS ON THESE DIRECTIONS FOR USE MUST BE FOLLOWED**

**THESE DIRECTIONS FOR USE MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF PESTICIDE APPLICATION.**

**This exemption is effective from \_\_\_\_\_, 2017 through \_\_\_\_\_, 2017**

Crop	Pest Controlled	Rate of Application
Apples, Peaches, Nectarines	Brown Marmorated Stinkbug	12.8 - 32 oz/A (0.08 - 0.2 lb ai/acre)

Directions for Use: Application must be made post-bloom, by ground only as a dilute (minimum 200 gallons of finished spray per acre) or concentrate (minimum 50 gallons of finished spray per acre). Use sufficient water to provide thorough coverage. For best control, thorough coverage is necessary. Do not apply this product until after petal fall.

Restrictions: Do not apply more than 32 oz/acre (0.2 lb ai/acre) per application. Do not apply more than 72 oz/A (0.5 lb ai/acre) per year. For all bifenthrin products used, do not apply more than a total of 0.5 lb ai/acre per season. Do not make applications less than 30 days apart. Do not graze livestock in treated areas or cut treated cover crops for feed. Do not apply within 14 days of harvest. Do not allow entry into treated areas for 12 hours following application.

Any adverse effects resulting from the use of Brigade WSB under this emergency exemption must be immediately reported to the North Carolina Department of Agriculture & Consumer Services.



FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104

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## **SECTION 18 FINAL REPORT 2016**

### **Bifenthrin - North Carolina - Apples, Peaches and Nectarines**

**FILE SYMBOLS:** 16-NC-07 (apple), 16-NC-08 (peaches) & 16-NC-08 (nectarines)

- 1. Total acreage, amount of commodity or other unit treated and the total quantity of the pesticide used:** Virtually all NC apple production and approximately 30% of peach production was threatened by brown marmorated stink bug in 2016. Based on surveys of growers, county agents and pesticide dealers, it is estimated that approximately 900 lbs active ingredient of bifenthrin was applied to about 3500 acres of apples and peaches in NC for BMSB in 2016.
- 2. A discussion of the effectiveness of the pesticide in dealing with the emergency condition:** The level of BMSB damage inflicted on apples and peaches was reduced significantly in 2016 due to bifenthrin use. Damage to apples in 2015 average almost 20% in many late-maturing cultivars. In 2016, overall damage average about 4.8%, largely due to multiple applications of bifenthrin.
- 3. A description of any unexpected adverse affects which resulted from the use of the pesticide under the exemption:** None
- 4. The results of any monitoring required and/or carried out under the exemption:** NA
- 5. A discussion of any enforcement actions taken in connection with the exemption:** NA
- 6. Methods of disposition of a food crop, if required to be destroyed under the exemption:** NA
- 7. Any other information requested by the Administrator. (This information was not requested. It is being provided to supplement the other information on this form.)** Brown marmorated stink bug has become the most important insect pest of apples and peaches in NC. Damage in 2015, a year when BMSB expanded to all production areas, resulted in high levels of damage to fresh and processing fruit – 20% damage was not uncommon. Increased grower awareness of the problem and availability of bifenthrin in 2016 suppressed overall damage to about 4.5%. Apple and peach production are not financially sustainable at damage levels >8-10%, and bifenthrin is a critical tool needed for growers to remain financially viable during this period of high BMSB pressure.
- 8. In cases where a crisis exemption was declared, an explanation as to why there was a need to utilize the crisis provisions.** NA